

**LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF ENVIRONMENTAL SERVICES**

STATEMENT OF BASIS¹

PROPOSED PART 70 OPERATING PERMIT 2580-00013-V0

**LOUISIANA REFINING DIVISION, GARYVILLE REFINERY
MARATHON PETROLEUM COMPANY LLC
GARYVILLE, ST. JOHN THE BAPTIST PARISH, LOUISIANA
Agency Interest (AI) No. 3165
Activity No. PER20080033**

I. APPLICANT

The applicant is: Marathon Petroleum Company LLC
P. O. Box AC
Garyville, Louisiana 70051

Facility: Garyville Refinery

SIC Code: 2911

Location: At 4663 West Airline Highway, Garyville, St. John the Baptist

II. PERMITTING AUTHORITY

The permitting authority is: Louisiana Department of Environmental Quality
Office of Environmental Services
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

III. CONTACT INFORMATION

Additional information may be obtained from:

Mr. Syed Quadri
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313
Phone: (225) 219-3181

IV. FACILITY BACKGROUND AND CURRENT PERMIT STATUS

Marathon Petroleum Company LLC (MPC) - The Louisiana Refining Division currently operates under several Part 70 Permits: 2640-V6 dated October 12, 2009; 2887-V7 dated January 6, 2009; No. 2891-V7 dated October 19, 2009; No. 2893-V11 dated December 16, 2009; and several Prevention of Significance Deterioration (PSD) Permits No.

¹ 40 CFR 70.7(a)(5) and LAC 33:III.531.A.4 require the permitting authority to "provide a statement that sets forth the legal and factual basis for the proposed permit conditions of any permit issued to a Part 70 source, including references to the applicable statutory or regulatory provisions."

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PSD-LA-548 dated March 16, 1989; PSD-LA-568(M-1) dated August 27, 1998; PSD-LA-640(M-1) dated April 10, 2008, and PSD-LA-719(M-1) dated May 28, 2008. This Title V Permit also incorporates the Early Reduction Program (ERP) Specialty Permit (Permit No. 2209500013) issued by EPA on July 25, 1997 and the requirements of the First Revised Consent Decree A NSR Global Settlement (Civil Action No. 01-CV-40119-PVG) between USA EPA and Marathon Ashland Petroleum date of entry November 17, 2005.

Permit No. 2887-V2 dated December 16, 2005 allowed a minor modification in order to operate the Hydrotreating Unit Reactor with changes to achieve its rated capacity and to isolate individual heat exchangers for repair rather than shut down the whole train, etc.

Permit No. 2887-V3 dated December 27, 2006 allowed the facility to expand the operations under the Garyville Major Expansion (GME) Project to increase the capacity from 245,000 to 425,000rels per calendar day.

Permit No. 2887-V4 dated October 26, 2007 allowed the facility to reduce the overall gasoline dock loading volume from 29.6 to 27.28 MM barrels per year each from the marine vapor combustors, Emission Points 55-08 and 107-90.

Permit No. 2887-V5 dated April 10, 2008, allowed the facility to incorporate the requirements of the First Revised Consent Decree – A NSR Global Settlement (Civil Action No. 01-CV-40119-PVG) between US EPA and Marathon Ashland Petroleum (aka MPC) date of entry November 17, 2005; Leak Detection and Repair (LDAR) Program Enhancement, Paragraph 20. Under this requirement of the Consent Decree the facility evaluated (equipment in light liquid, gas, and heavy liquid) and retagged (potential to leak and identification of all streams) fugitive emissions components for the LDAR program at the refinery. This resulted in an increase in fugitive component count and the fugitive emissions. LDAR audits results were utilized and fugitive emissions calculation methodology was based on EPA's correlation equation (EPA-453/R-95-017). The Tank Cleaning (Emission Point TV-11) emissions were updated to reflect the operating scenarios. In addition, the facility incorporated HF emissions from Unit 27 Fugitives which were inadvertently omitted earlier.

Installation of a Sulfolane Unit (permitted under GME Permit No. 3039-V4) to meet USEPA Mobile Source Air Toxics (MSAT) Phase 2 final rule requirements dated February 9, 2007, to limit gasoline product benzene content to an annual average of 0.62 percent by volume. To operate the Sulfolane Unit the facility revamped the existing equipment (Boilers, Cooling Towers, Wastewater Collection and Treatment System, Marine Tanks and Barge Loading Operations and Fugitive Emission Sources), installed new internal floating roof tanks. These changes were permitted under Part 70 Permit No.

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2887-V6 dated November 26, 2008. The Sulfolane Unit project was mothballed later on.

Permit No. 2887-V7 dated January 6, 2009 allowed the facility to process imported waste from Marathon Petroleum Company LLC, Texas City Refinery in addition to the locally generated API/DAF sludge from the Thermal Desorption Unit and the GME Project. The facility is in the process of installing a Permanent Sludge Management Facility (PSMF). The solids stream from this unit will dispose off in a nonhazardous landfill and the other two phases (water and oil) will be recycled within the facility. These oily wastes are treated at the Wastewater Treatment Plant (WWTP) and then discharged to the surface waters under the National Pollutant Discharge Elimination System (NPDES).

Background on other permits can be obtained from the individual permits, Permit Nos. 2640-V6 dated October 12, 2009; 2891-V7 dated October 19, 2009; and 2893-V11 dated December 16, 2009.

The Marathon Petroleum Company – Louisiana Refining Division, Garyville Refinery is presently operating under Permit No. 2640-V6 dated October 12, 2009; 2887-V7 dated January 6, 2009; 2891-V7 dated October 19, 2009; and 2893-V11 dated December 16, 2009

This permit consolidates all emissions from the above referenced permits into one permit.

A Part 70 permit addressing other process unit at MPC has already been issued. This includes:

Permit No.	Process Unit	Date Issued
3039-V6	GME Project	3/23/2010

V. PROPOSED PERMIT/PROJECT INFORMATION

A permit application and Emission Inventory Questionnaire (EIQ) dated December 12, 2008 were received for the renewal of Permit No. 2887-V7 and to consolidate all the permits (Permit Nos. 2640-V6, 2887-V7, 2891-V7, and 2893-V11) for the facility into one permit except the Garyville Major Expansion (Permit No. 3039-V6) permit. The facility submitted a revised application dated February 5, 2010. Additional information as of May 10, 2010, was also received.

The application was deemed administratively complete in accordance with LAC 33:III.519.A on December 17, 2008.

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to the polypropylene plants via pipelines. Purified propylene is also sent to the propylene loading rack for outside sales.

Coker Unit: The Coker Unit converts heavy oil into more valuable products and feedstocks. It also produces approximately 2,850 tons per day high sulfur coke which is sold as solid fuel on the open market. It operates as described below:

Feed to the Coker Unit is pumped to a heater where the heavy oil is preheated to the desired temperature. The vapor-liquid mixture leaving the furnace enters one of the two drums where it is converted to lighter hydrocarbon vapors and petroleum coke. The unit has two coke drums to allow continuous operation. Hydrocarbon vapors from the coke drum are routed to a fractionation tower and separated into the following products: sour gas, naphtha coker distillate, and coker gas oil. Sour gas is processed and sweetened in the unit's gas concentration unit with the propane/butane routed to the HF Alkylation Unit and the methane/ethane diverted to the fuel gas system. Naphtha and distillate are piped to the Distillate Hydrotreater for sweetening into diesel fuel. The gas oil is routed to Heavy Gas Oil Hydrotreater for sweetening prior to being processed in the Fluid Catalytic Cracking Unit (FCCU).

Proposed Modifications

The facility is proposing to incorporate all the current permits (Permit Nos. 2640-V6, 2887-V7, 2891-V7 and 2893-V11) for the facility except the Garyville Major Expansion permit (Permit No. 3039-V6) into one Part 70 Operating permit (Permit No. 2580-00013-V0). Also, incorporate previously approved minor modifications, reconciliations, approved Case by Case Insignificant Activities, updated fugitive components based on an on going audit, update the equipment and emissions based on better reflection of operations (splitting emission point, modify facility CAPs, change hours of operations, reconcile emissions, update loading emissions, etc.). The following are the changes in some details and are not all inclusive:

1. Split Sulfur Plant No. 1&2 Sulfur Pit into two emission points; Sulfur Pit Unit 20, Emission Point 51-74 and Sulfur Pit Unit 34, Emission Point 92-74. Emission Point 92-74 is added as a new emission point and permitted under a cap, Emission Point 25-08;
2. Delete API Separator, Emission Point 53-74, and Wastewater Storage Tank, Emission Point 15-97, as the emissions were incorporated in Wastewater Collection/Treatment (Trains 1-5), Emission Point 30-08;
3. Delete Cooling Water Towers, Emission Point 61-74, as the cooling towers are permitted individually, Emission Points 61A-74 thru 61D-74;

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4. The emissions from Butane Storage Tanks, Emission Point 1-88 and 2-88, are routed to the Flare Station, Emission Point 3-88. The efficiency of the flare has been changed from 99% to 98%;
5. Marine Loading Vapor Combustor, Emission Point 107-90, operating hours changed from 1,776 to 8760 hours per year;
6. Sulfur Plant Storage Tank, Emission Point 122-91, removed from the inventory;
7. Incorporated the asphalt loading into Marine/Barge Loading Operations (Uncontrolled), Emission Point 134-96;
8. Emissions from Propylene/Propane/Butane Loading/Unloading Rack, Emission Point 14-97, emissions have been changed based on decrease potential to emit (PTE) and control device the North Flare, Emission Point 83-74, efficiency from 99% to 98%;
9. Renamed Sulfur Plant No. 3 Storage Pit, Emission Point 13-00, as Sulfur Pit Unit 45;
10. Renamed Sulfur Plant Storage Tank, Emission Point 1-06, as Sulfur Plant Storage Tank (44-1904);
11. Renamed sulfur pits and sulfur storage tanks based on their relative units;
12. Incorporated the emissions from Sulfur Truck/Asphalt Truck/Railcar Loading, Emission Point TV-10, into Sulfur Truck Loading;
13. Incorporated the emissions from Turnaround – Diesel Fired Equipment, emission Point TV-13, into Routine Maintenance and Turnaround – Diesel Fired Equipment, Emission Point TV-12;
14. Platformer Regenerator Stack, Emission Point 62-74, VOC and PM₁₀ emissions have been updated which will not affect the monitoring, recordkeeping and reporting requirements of Part 70 Specific Condition No. 3;
15. Fixed Roof Tank CAP, Emission Point 129-95 and Floating Roof Tanks CAP, Emission Point 130-95, have been updated based on the overall operational changes and reconciliations;
16. Removed FCCU Naphtha Tank (10-5), Emission Point 91-74, from the inventory;
17. Incorporated two Case By Case Insignificant Activities a) NDHT Unit 56 Float Column Water Boot Draining & Flushing dated May 30, 2007 and b) Eocene Compressors' knockout Drums dated December 26, 2007;
18. Moved Startup/Shutdown emissions from Units 220, 221, 232, 234, and 247 from the GME Flare to the North Flare and changed the flare efficiency from 99% to 98%;
19. Incorporated Shell Off-Gas Compressor Flaring emissions in the South Flare Stack (59-1401), Emission Point 69-74 and reduced the flare efficiency from 99% to 98%;
20. Updated the emissions from the LPG off-gases from Merox Unit that are routed to the FCC Charge Heater (25-1401) based on stack test results;

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21. Updated emissions from the Disulfide Off Gas stream routed to the Sats. Gas Hot Oil Heater (22-1401); this heater is part of the Combustion Source Emission CAP, Emission Point 133-00;
22. Changed the applicability on FCC Regenerator Vent (30-1401), Emission Point 86-74, from 40 CFR 60 Subpart J to 40 CFR 60 Subpart Ja.

VI. ATTAINMENT STATUS OF PARISH

<u>Pollutant</u>	<u>Attainment Status</u>	<u>Designation</u>
PM _{2.5}	Attainment	N/A
PM ₁₀	Attainment	N/A
SO ₂	Attainment	N/A
NO ₂	Attainment	N/A
CO	Attainment	N/A
Ozone ²	Attainment	N/A
Lead	Attainment	N/A

VII. PERMITTED AIR EMISSIONS

Sources of air emissions are listed on the "Inventories" page of the proposed permit.

Permitted emissions from the facility (Permit No. 2640-V6, 2887-V7, 2891-V7, and 2893-V11) in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	275.72	289.68	+ 13.96
SO ₂	787.03	809.92	+ 22.89
NO _x	2034.55	2026.09	- 8.46
CO	1389.93	1412.70	+ 22.77
VOC	1359.31	1468.06	+ 108.75

PM₁₀ and VOC compounds classified as LAC 33:III.Chapter 51-regulated toxic air pollutants (TAP) are speciated below. This list encompasses all Hazardous Air Pollutants (HAP) regulated pursuant to Section 112 of the Clean Air Act. Note, however, all TAPs are not HAPs (e.g., ammonia, hydrogen sulfide).

² VOC and NO_x are regulated as surrogates.

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VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):			
Pollutant	Before	After	Change
1,1,2,2-Tetrachloroethane	0.21	0.26	+ 0.05
1,1,2-Trichloroethane	<0.01	0.01	+ 0.01
1,3-Butadiene	0.10	0.12	+ 0.02
1,4-Dichlorobenzene	<0.01	<0.01	-
2,2,4-Trimethylpentane	5.27	5.65	+ 0.38
Acrylonitrile	<0.01	<0.01	-
Benzene	19.93	19.99	+ 0.06
Biphenyl	0.74	0.43	- 0.31
Carbon disulfide	0.20	0.25	+ 0.05
Chlorinated Dibenzo-P-Dioxins	-	<0.001	+ <0.001
Chlorinated dibenzofurans	-	<0.001	+ <0.001
Chlorobenzene	<0.01	<0.01	-
Chloroform	<0.01	0.01	+ 0.01
Cresol	0.65	0.43	- 0.22
Cumene	0.24	0.24	-
Ethyl benzene	7.05	7.12	+ 0.07
Formaldehyde	0.31	0.38	+ 0.07
Methyl chloride	0.58	0.73	+ 0.15
Methanol	0.02	0.02	-
Methyl tert butyl ether	0.47	-	- 0.47
Methyl ethyl ketone	1.85	1.84	- 0.01
Methyl isobutyl ketone	0.19	0.74	+ 0.55
Naphthalene	6.87	6.92	+ 0.05
n-Hexane	29.29	28.78	- 0.51
Polynuclear Aromatic HCs	0.32	0.48	+ 0.16
Phenol	0.28	0.09	- 0.19
Styrene	0.24	0.22	- 0.02
Toluene	38.37	33.20	- 5.17

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<u>VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):</u>			
Pollutant	Before	After	Change
Vinyl Acetate	<0.01	-	- <0.01
Xylenes	18.21	18.95	+ 0.74
Total	131.07	126.38	- 4.69
Other VOC (TPY)		1341.68	
<u>Non VOC Toxic Air Pollutants (TAPs)</u>			
Pollutant	Before	After	Change
Ammonia	11.08	7.38	- 3.70
Antimony (and compounds)	<0.01	0.02	+ 0.02
Arsenic (and compounds)	<0.01	<0.01	-
Barium (and compounds)	<0.01	<0.01	-
Cadmium (and compounds)	<0.01	<0.01	-
Chlorine	3.40	3.40	-
Chromium VI (and compounds)	<0.01	<0.01	-
Hydrochloric acid	14.15	14.15	-
Hydrofluoric acid	1.50	2.90	+ 1.40
Hydrogen sulfide	27.41	29.90	+ 2.49
Lead (and compounds)	<0.01	<0.01	-
Mercury (and compounds)	<0.01	<0.01	-
Nickel (and compounds)	<0.01	<0.01	
Sulfuric acid	37.22	37.22	-
Tetrachloroethylene	4.30	4.37	+ 0.07
Zinc	<0.01	<0.01	-
Total	99.06	99.34	+ 0.28

MPC is a major source of criteria pollutants, a major source of HAPs, and a major source of TAPs.

Permitted limits for individual emissions units and groups of emissions units, if applicable, are set forth in the tables of the proposed permit entitled "Emission Rates for Criteria Pollutants" and "Emission Rates for TAP/HAP & Other Pollutants." These tables are part of the permit.

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Emissions calculations can be found in Appendix E of Volume II of the permit application. The calculations address the manufacturer's specifications, fuel composition (e.g., sulfur content), emissions factors, and other assumptions on which the emissions limitations are based and have been reviewed by the permit writer for accuracy.

General Condition XVII Activities

Very small emissions to the air resulting from routine operations that are predictable, expected, periodic, and quantifiable and that are submitted by the applicant and approved by the Air Permits Division are considered authorized discharges. These releases are not included in the permit totals because they are small and will have an insignificant impact on air quality. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements. Approved General Condition XVII activities are noted in Section VIII of the proposed permit.

Insignificant Activities

The emissions units or activities listed in Section IX of the proposed permit have been classified as insignificant pursuant to LAC 33:III.501.B.5. By such listing, the LDEQ exempts these sources or types of sources from the requirement to obtain a permit under LAC 33:III.Chapter 5. However, such emissions are considered when determining the facility's potential to emit for evaluation of applicable requirements.

VIII. REGULATORY APPLICABILITY

Regulatory applicability is discussed in three sections of the proposed permit: Section X, Section XI, and Specific Requirements. Each is discussed in more detail below.

Section X: Applicable Louisiana and Federal Air Quality Requirements

Section X summarizes all applicable federal and state regulations. In the matrix, a "1" represents a regulation applies to the emissions unit. A "1" is also used if the emissions unit is exempt from the emissions standards or control requirements of the regulation, but monitoring, recordkeeping, and/or reporting requirements apply.

A "2" is used to note that the regulation has requirements that would apply to the emissions unit, but the unit is exempt from these requirements due to meeting a specific criterion, such as it has not been constructed, modified, or reconstructed since the regulation has been effective. If the specific criterion changes, the emissions unit will have to comply at a future date. Each "2" entry is explained in Section XI.

A "3" signifies that the regulation applies to this general type of source (e.g., furnace, distillation column, boiler, fugitive emissions, etc.), but does not apply to the particular emissions unit. Each "3" entry is explained in Section XI.

If blank, the regulation clearly does not apply to this type of emissions unit.

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Section XI: Explanation for Exemption Status or Non-Applicability of a Source

Section XI of the proposed permit provides explanation for either the exemption status or non-applicability of given federal or state regulation cited by 2 or 3 in the matrix presented in Section X (Table 1).

Specific Requirements

Applicable regulations, as well as any additional monitoring, recordkeeping, and reporting requirements necessary to demonstrate compliance with both the federal and state terms and conditions of the proposed permit, are provided in the "Specific Requirements" section. Any operating limitations (e.g., on hours of operation or throughput) are also set forth in this section. Associated with each Specific Requirement is a citation of the federal or state regulation upon which the authority to include that Specific Requirement is based.

1. Federal Regulations

40 CFR 60 – New Source Performance Standards (NSPS)

The following subparts are applicable at the MPC: A, Db, J, Ja, K, Ka, Kb, GGG, GGGa, NNN, QQQ, VV, and VVa. Apart from these regulations MPC has entered into the Storage Tank Emission Reduction Partnership (STERP) Agreement for the external floating roof tanks with slotted guidepoles. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

MPC has entered into a Storage Tank Emissions Reduction Partnership (STERP) Agreement to control emissions from NSPS Subpart Ka and Kb tanks and can be found in Section 4.3.7 of the application.

40 CFR 61 – National Emission Standards for Hazardous Air Pollutants (NESHAP)

The following subparts are applicable at the MPC: A, FF, and M. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

40 CFR 63 – Maximum Achievable Control Technology (MACT)

The following subparts are applicable at the MPC: A, Q, CC, and UUU. Applicable emission standards, monitoring, test methods and procedures, recordkeeping, and reporting requirements are summarized in the "Specific Requirements" section of the proposed permit.

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The Title III of the Clean Air Act provides for a voluntary Early Reduction Program (ERP). MPC has opted for this program with EPA and received an extension from compliance with the MACT standards and the details can be found in the proposed permit and in Section 4.6 of the application.

Clean Air Act §112(g) or §112(j) – Case-By-Case MACT Determinations

A case-by-case MACT determination pursuant to §112(g) or §112(j) of the Clean Air Act was not required.

40 CFR 64 – Compliance Assurance Monitoring (CAM)

Per 40 CFR 64.2(a), CAM applies to each pollutant-specific emissions unit (PSEU) that 1) is subject to an emission limitation or standard, 2) uses a control devices to achieve compliance, and 3) has potential pre-control device emissions that are equal to or greater than 100 percent of the amount, in TPY, required for a source to be classified as a major source.

MPC is not subject to or exempted from the CAM requirements as it does not have a potential pre-control device emissions that are equal to or greater than 100 percent of the amount in TPY or they are subject to emission limitation or standard promulgated after November 15, 1990.

Acid Rain Program

The Acid Rain Program, 40 CFR Part 72 – 78, applies to the fossil fuel-fired combustion devices listed in Tables 1-3 of 40 CFR 73.10 and other utility units, unless a unit is determined not to be an affected unit pursuant to 40 CFR 72.6(b). LDEQ has incorporated the Acid Rain Program by reference at LAC 33:III.505. MPC is not subject to the Acid Rain Program.

2. SIP-Approved State Regulations

Applicable state regulations are also noted in Section X of the proposed permit. Some state regulations have been approved by the U.S. Environmental Protection Agency (EPA) as part of Louisiana's State Implementation Plan (SIP). These regulations are referred to as "SIP-approved" and are enforceable by both LDEQ and EPA. All LAC 33:III.501.C.6 citations are federally enforceable unless otherwise noted.

3. State-Only Regulations

Individual chapters or sections of LAC 33:III noted by an asterisk in Section X (Table 1) are designated "state-only" pursuant to 40 CFR 70.6(b)(2). Terms and conditions of the proposed permit citing these chapters or sections are not SIP-approved and are not subject to the requirements of 40 CFR Part 70. These terms and conditions are enforceable by LDEQ, but not EPA. All conditions not designated as "state-only" are presumed to be federally enforceable.

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State MACT (LAC 33:III.Chapter 51)

MPC is a major source of LAC 33:III.Chapter 51 regulated TAP. The owner or operator of any major source that emits or is permitted to emit a Class I or Class II TAP at a rate equal to or greater than the Minimum Emission Rate (MER) listed for that pollutant in LAC 33:III.5112 shall control emissions of that TAP to a degree that constitutes Maximum Achievable Control Technology (MACT), except that compliance with an applicable federal standard promulgated by the U.S. EPA in 40 CFR Part 63 shall constitute compliance with MACT for emissions of toxic air pollutants. Applicable Part 63 standards are addressed in Section VIII.1 of this Statement of Basis. MACT is not required for Class III TAPs; however, the impact of all TAP emissions must be below their respective Ambient Air Standards (AAS).

MACT determinations were made pursuant to Chapter 51 for the following emissions units under the Leak Detection and Repair (LDAR) program: Addressed in Part 70 Specific Condition No. 1 and State MACT requirements are cited as LAC 33:III.5109.A in the proposed permit.

IX. NEW SOURCE REVIEW (NSR)

1. Prevention of Significant Deterioration (PSD)

The facility's source category is listed in Table A of the definition of "major stationary source" in LAC 33:III.509. As such, the PSD major source threshold is 100 TPY (of any regulated NSR pollutant).

MPC is a major stationary source under the PSD program, LAC 33:III.509. However, there are no physical changes or changes in the method of operation associated with this permit modification

MPC is a major stationary source under the PSD program, LAC 33:III.509

Permitted emissions from the facility (Permit No. 2640-V6, 2887-V7, 2891-V7, and 2893-V11) in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>	<u>PSD Threshold</u>
PM ₁₀	275.72	289.68	+ 13.96	25/15 (PM/PM ₁₀)
SO ₂	787.03	809.92	+ 22.89	40
NO _x	2034.55	2026.09	- 8.46	40
CO	1389.93	1412.70	+ 22.77	100

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<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>	<u>PSD Threshold</u>
VOC	1359.31	1468.06	+ 108.75	40

PSD review is not required for VOC emissions as the increase without regard to decreases are due to consolidation of all permits as referenced above and new method of calculations and addition of Propane Freeze test activities, Tank Farm painting activities and flaring due to Shell Off Gas Compressor maintenance which was approved as variance as and when required. The emission increases are described below.

The increase in VOC emissions is due to change in calculations methodology for Asphalt Loading Operations (truck), Emission Point 70-08 (0.02 tpy); added emissions from existing Propane Freeze Test activities, Emission point TV-15 and TV-16 (10.88 tpy); updated the emissions from Tank Farm Painting Operation based on a recent audit, Emission Point TV-14 (9.05 tpy); updated the emissions from Platformer Regenerator Stack based on stack test, Emission Point 62-74 (0.17 tpy); updated the Routine Maintenance and Turnaround emissions, Emission Point TV-12 (4.88 tpy); Updated emissions from the Marine/Barge Loading Operations due to change in calculation methodology for Asphalt, Emission Point 134-96 (3.83 tpy); changed the Emergency Flare Station, emission Point 3-88, efficiency from 99% to 98% (13.02 tpy); changed the South Flare Stack, Emission Point 69-74, efficiency from 99% to 98% (38.97 tpy) and incorporated the flaring emissions Shell off gas compressor during maintenance; updated the Storage Tank Cleaning, Emission Point TV-11, emissions (30.73 tpy); updated emission calculations based on the current operations for Wastewater Collection/Treatment Operations, Emission Point 30-08, and incorporated the emissions from Wastewater Storage Tank, Emission Point 15-97 (13.11 tpy); and updated most of the unit fugitive emissions based on new fugitive component count. The increases referenced above are not due to any modifications (any physical change or change in the method of operation) at the facility. There are other reconciliations which contribute to increases and decreases and are not related to any modifications.

BACT

Under current PSD regulations, an analysis of "top down" BACT is required for the control of each regulated pollutant emitted from a new/modified major stationary source in excess of the specified significant emission rates. The top down approach to the BACT process involves determining the most stringent control technique available for a similar or identical source. If it can be shown that this level of control is infeasible based on technical, environmental, energy, and/or cost considerations, then it is rejected and the next most stringent level of control is determined and similarly evaluated. This process continues until a control level is arrived at which cannot be eliminated for any technical, environmental, or economic reason. A technically feasible control strategy is one that has been demonstrated to function efficiently on identical or similar processes. Additionally,

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BACT shall not result in emissions of any pollutant which would exceed any applicable standard under the requirements of 40 CFR Parts 60 and 61.

PSD review was not required.

Air Quality Impact Analyses

Prevention of Significant Deterioration regulations require an analysis of existing air quality for those pollutants emitted in significant amounts from a proposed modified (consolidation of all permits) major stationary source. No criteria pollutant increase is due to any modification (change in method of operation with increase in emissions). Modeling was performed under the state requirements, which is represented in Section VII of the proposed permit and also in Section XIII of this document.

2. **Nonattainment New Source Review (NNSR)**

MPC is located in an attainment area; therefore, NNSR does not apply.

3. **Notification of Federal Land Manager**

The Federal Land Manager (FLM) is responsible for evaluating a facility's projected impact on the Air Quality Related Values (AQRV) (e.g., visibility, sulfur and nitrogen deposition, any special considerations concerning sensitive resources, etc.³) and recommending that LDEQ either approve or disapprove the facility's permit application based on anticipated impacts. The FLM also may suggest changes or conditions on a permit. However, LDEQ makes the final decision on permit issuance. The FLM also advises reviewing agencies and permit applicants about other FLM concerns, identifies AQRV and assessment parameters for permit applicants, and makes ambient monitoring recommendations.

If LDEQ receives a PSD or NNSR permit application for a facility that "may affect" a Class I area, the FLM charged with direct responsibility for managing these lands is notified.

The meaning of the term "may affect" is interpreted by EPA policy to include all major sources or major modifications which propose to locate within 100 kilometers (km) of a Class I area. However, if a major source proposing to locate at a distance greater than 100 km is of such size that LDEQ or the FLM is concerned about potential impacts on a Class I area, LDEQ can ask the applicant to perform an analysis of the source's potential emissions impacts on the Class I area. This is because certain meteorological conditions, or the quantity or type of air emissions from large sources located further than 100 km, may cause adverse impacts. In order to determine whether a source located further than 100 km may affect a Class I area, LDEQ uses the Q/d approach.

³ See <http://www2.nature.nps.gov/Air/Permits/ARIS/AQRV.cfm>.

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Q/d refers to the ratio of the sum of the net emissions increase (in tons) of PM₁₀, SO₂, NO_x, and H₂SO₄ to the distance (in kilometers) of the facility from the nearest boundary of the Class I area.

$$Q/d = \frac{PM_{10(NEI)} + SO_{2(NEI)} + NO_{x(NEI)} + H_2SO_{4(NEI)}^4}{\text{Class I km}}$$

Where:

PM _{10(NEI)}	=	net emissions increase of PM ₁₀
SO _{2(NEI)}	=	net emissions increase of SO ₂
NO _{x(NEI)}	=	net emissions increase of NO _x
H ₂ SO _{4(NEI)}	=	net emissions increase of H ₂ SO ₄
Class I km	=	distance to nearest Class I area (in kilometers)

If $Q/d \geq 4$, LDEQ will formally notify the FLM in accordance with LAC 33:III.504.E.1 / LAC 33:III.509.P.1.

In this instance,

$$Q/d = \frac{13.96}{120} + \frac{22.89}{120} + \frac{(-8.46)}{120} + \frac{0}{120} = < 4$$

Therefore, LDEQ has determined that the proposed project will not adversely impact visibility in Breton National Wildlife Refuge, the nearest Class I area.

4. Reasonable Possibility

As previously mentioned, increases of VOC associated with the proposed consolidation of permit and other changes (no modification) did not trigger PSD review, because the increases were not due to consolidation of all permits, new methodology of calculation, and addition of some activities which are existing. Therefore, there is no "reasonable possibility" that the proposed changes may result in a significant emissions increase.

X. ADDITIONAL MONITORING AND TESTING REQUIREMENTS

In addition to the monitoring and testing requirements set forth by applicable state and federal regulations (see Section VIII of this Statement of Basis), a number of "LAC 33:III.507.H.1.a" and/or "LAC 33:III.501.C.6" conditions may appear in the "Specific Requirements" section of the proposed permit. These conditions have been added where

⁴ If both NNSR and PSD review are required, the higher of the two "net emissions increase" values has been selected. The net emissions increase for NNSR and PSD purposes may be different due to differing contemporaneous periods. If the net emissions increase of any pollutant is negative, the value used in the equation has been set to zero. If the project did not trigger a netting analysis, LDEQ uses the project increase (see §504.A.3 (NNSR) and §509.A.4 (PSD)). In this case, the value will be less than the pollutant's significance level.

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no applicable regulation exists or where an applicable regulation does not contain sufficient monitoring, recordkeeping, and/or reporting provisions to ensure compliance. LAC 33:III.507.H.1.a provisions, which may include recordkeeping requirements, are intended to fulfill Part 70 periodic monitoring obligations under 40 CFR 70.6(a)(3)(i)(B).

MPC entered into an agreement with EPA for Storage Tank Emission Reduction Partnership (STERP) Agreement. The proposed permit establishes a specific condition which is represented in Part 70 Specific Condition No. 4.

MPC has also entered into another agreement for the Early Reduction Program (ERP) which is represented in the Part 70 Specific Condition No. 5 of the proposed permit.

XI. OPERATIONAL FLEXIBILITY

Emissions Caps

An emissions cap is a permitting mechanism to limit allowable emissions of two or more emissions units below their collective potential to emit (PTE). The proposed permit does establish an emissions cap.

MPC shall comply with the emission limits for the following emission caps (Equipment Groups): a) Fixed Roof Tanks Cap (GRP0018); b) Floating Roof Tanks Cap (GRP0019); c) Combustion Sources Emission Cap (GRP0020); d) Thermal Oxidizer No. 1, 2 & 3 Cap (GRP0021); e) Sulfur Pits Storage and Loading Cap (GRP0032); and f) GME Marine Vapor Combustor Cap (GRP0033).

MPC is required to monitor and keep records of the emissions for each equipment based on the relevant parameters every month and for the last twelve consecutive months to show compliance with the emission limits in the proposed permit. The specific conditions can be found in the "Specific Requirements" of the proposed permit.

Alternative Operating Scenarios

LAC 33:III.507.G.5 allows the owner or operator to operate under any operating scenario incorporated in the permit. Any reasonably anticipated alternative operating scenarios may be identified by the owner or operator through a permit application and included in the permit. The proposed permit does not include an alternative operating scenario.

Streamlined Requirements

When applicable requirements overlap or conflict, the permitting authority may choose to include in the permit the requirement that is determined to be most stringent or protective as detailed in EPA's "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program" (March 5, 1996). The overall objective is to determine the set of permit terms and conditions that will assure compliance with all applicable requirements for an emissions unit or group of emissions units so as to eliminate

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redundant or conflicting requirements. The proposed permit does contain streamlined provisions.

Louisiana Consolidated Fugitive Emission Program (LCFEP)

MPC complies with a streamlined equipment leak monitoring program.

Compliance with the streamlined program shall constitute compliance with each of the fugitive emission monitoring programs being streamlined. Fugitive emissions are subject to the requirements of 40 CFR 63 Subpart CC, 40 CFR 60 Subpart GGG, 40 CFR Subpart GGGa, LAC 33:III.2121, and LAC 33:III.5109 (Louisiana Refinery MACT). Therefore, fugitive emissions shall be monitored as required by this program.

The following table gives the details of the streamlined program:

<u>Unit or Plant Site</u>	<u>Programs Streamlined</u>	<u>Stream Applicability</u>	<u>Overall Most Stringent Program</u>
5-Coker	NSPS Subpart GGG* NESHAP Subpart CC LA Refinery MACT LAC 33:III.Chapter 21	10% VOC 5% VOHAP 5% Air Toxics 10% VOC	Louisiana Refinery MACT
7 – ROSE Unit	NSPS Subpart GGG* LAC33:III.Chapter 21	10% VOC 10% VOC	NSPS Subpart GGG*
8 – LSR Hydrotreater	NSPS Subpart GGG* NESHAP Subpart CC LAC 33:III.Chapter 21	10% VOC 5% VOHAP 10% VOC	NESHAP Subpart CC
9 – Penex	NSPS Subpart GGG* LAC 33:III.Chapter 21 NESHAP Subpart CC	10% VOC 10% VOC 5% VOHAP	NESHAP Subpart CC
10 – Crude Unit	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
11 – Naphtha Hydrotreater	LAC Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
12 – Platforming Unit	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
14 – Distillate Hydrotreater Unit	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
15 – HGO Hydrotreater Unit	NSPS Subpart GGG* LAC 33:III.Chapter 21	10% VOC 10% VOC	NSPS Subpart GGG*

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<u>Unit or Plant Site</u>	<u>Programs Streamlined</u>	<u>Stream Applicability</u>	<u>Overall Most Stringent Program</u>
16 – FCC Gas Merox	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
17 – LPG Merox	NSPS Subpart GGG* LAC 33:III.Chapter 21	10% VOC 10% VOC	NSPS Subpart GGG*
19 – Amine/Sour Water Stripper	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
20 – Sulfur Plant No. 1	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
21 – Tail Gas Unit	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
22 – Saturates Gas Plant	LAC 33:III.Chapter 21 NESHAP Subpart CC LA Refinery MACT	10% VOC 5% VOHAP 5% Air Toxics (Class I&II)	Louisiana Refinery MACT
23 – Propane Merox Unit	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
24 – Butane Merox Unit	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
25 – FCCU	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
26 – FCCU Gas Con	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
27 – HF Alkylation	NSPS Subpart GGG* LAC 33:III.Chapter 21 NESHAP Subpart CC	10% VOC 10% VOC 5% VOHAP	NESHAP Subpart CC
28 – Butane Isomerization	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
32 – Tail Gas Unit	NSPS Subpart GGG* LAC Chapter 21	10% VOC 10% VOC	NSPS Subpart GGG*
33 – Sour Water Stripping	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT

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<u>Unit or Plant Site</u>	<u>Programs Streamlined</u>	<u>Stream Applicability</u>	<u>Overall Most Stringent Program</u>
34 – Sulfur Plant No. 2	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
36 – Boiler Feedwater Treating	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
39 – Plant Water Treatment	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
41 Intermediate Product Storage	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
42 – North Steam Plant	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
43 – Fuel Gas System Unit	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
45 – Sulfur Plant No. 3	NSPS Subpart GGG* LAC 33:III.Chapter 21	10% VOC	NSPS Subpart GGG*
46 – Propylene Splitter Fugitives	NSPS Subpart GGG* LAC 33:III.Chapter 21	10% VOC 10% VOC	NSPS Subpart GGG*
47 – Amine Unit	NSPS Subpart GGG* LAC 33:III.Chapter 21	10% VOC 10% VOC	NSPS Subpart GGG*
50 – Marine Loading Docks 1 & 2	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
55 – Gasoline Desulfurization Unit	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
56 – New Distillate Hydrotreater Unit	NSPS Subpart GGG* LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
59 – Flare Knockout Drum	LAC 33:III.Chapter 21 NESHAP Subpart CC	10% VOC 5% VOHAP	NESHAP Subpart CC
60 – Wastewater	LAC 33:III.Chapter 21 NSPS Subpart GGGa**	10% VOC 10% VOC	NSPS Subpart GGGa**
63 – Interconnecting Pipeway	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
64 – Railroad Racks LPG	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121

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<u>Unit or Plant Site</u>	<u>Programs Streamlined</u>	<u>Stream Applicability</u>	<u>Overall Most Stringent Program</u>
65 – Truck & Rail Car Loading	LAC 33:III.Chapter 21	10% VOC	LAC 33:III.2121
66 – Refrigerated Butane Storage	LAC 33:III.Chapter 21 NSPS Subpart GGG*	10% VOC 10% VOC	NSPS Subpart GGG*
67 – Blending Facilities	LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT
71 – Barge Dock No. 3 Fugitives	NSPS Subpart GGG* LAC 33:III.Chapter 21 LA Refinery MACT NESHAP Subpart CC	10% VOC 10% VOC 5% Air Toxics (Class I&II) 5% VOHAP	Louisiana Refinery MACT

XII. PERMIT SHIELD

A permit shield, as described in 40 CFR 70.6(f) and LAC 33:III.507.I, provides an “enforcement shield” which protects the facility from enforcement action for violations of applicable federal requirements. It is intended to protect the facility from liability for violations if the permit does not accurately reflect an applicable federal or federally enforceable requirement.

The proposed permit does not establish a permit shield.

XIII. IMPACTS ON AMBIENT AIR

Emissions associated with the proposed consolidation and changes were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ required the applicant to model emissions.

Modeling was performed by the LDEQ for Antimony, Biphenyl, and Benzene permitted emissions associated with the proposed consolidated permit and reconciliation. Modeling for other pollutants PM₁₀, CO and SO₂ were not performed because the emissions for these criteria pollutants have decreased. Modeling was performed for toxic air pollutants which increased over its respective minimum emission rate (MER) under the state program LAC 33:III.5109.B; see the results below.

Modeling demonstrates that emissions from MPC will not violate National Ambient Air Quality Standards (NAAQS) for criteria pollutants and Louisiana Ambient Air Standards (AAS) for toxic air pollutants. Therefore, MPC will not cause air quality impacts which could adversely affect human health or the environment. For earlier modeling results refer to Section VII of the proposed permit.

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Pollutant	Time Period	Adjusted Pollutant Concentration	Louisiana Air Quality Standard (AAS) *
Antimony	8-Hour	0.002 ug/m ³	11.90 ug/m ³
Biphenyl	8-Hour	5.94 ug/m ³	23.80 ug/m ³
Benzene	Annual	11.20 ug/m ³	12.00 ug/m ³

*Ambient air standard set forth in LAC 33:III.5112.

XIV. COMPLIANCE HISTORY AND CONSENT DECREE

MPC's compliance history can be found in Section 15.a of the permit application. It must be disclosed per LAC 33:III.517.E and 517.D.12, if applicable.

No federal or state actions have been issued since the current permits for the MPC were issued. MPC is already in the process of compliance with all the requirements of a Consent Decree (Civil Action No. 01-40119 entered on August 28, 2001) between United States of America (EPA) and Interveners versus Marathon Ashland Petroleum LLC (Now Marathon Petroleum Company LLC). Ultimately, Consent Decree's continuous compliance requirements will be incorporated into the Part 70 Operating Permits.

XV. REQUIREMENTS THAT HAVE BEEN SATISFIED

The following state and/or federal obligations have been satisfied and are therefore not included as Specific Requirements.

All initial notifications in reference to all applicable NSPS 40 CFR 60 Subpart Db, J, Ja, K, Ka, Kb, NNN, QQQ; NESHAP 40 CFR 61 Subpart FF; and NESHAP 40 CFR 63 Subpart CC, Subpart Q, and Subpart UUU have been satisfied. Permittee has also conducted the stack testing or performance testing for all applicable sources in reference to NSPS and NESHAP regulations as referenced and submitted the reports as applicable.

Permittee has also submitted the air toxics compliance plan including the AAS dispersion modeling analysis for all regulated air toxics.

Notification of Compliance Status has also been submitted for all applicable sources as per the requirements of NESHAP (MACT) 40 CFR 63 Subpart CC and Subpart UUU.

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XVI. OTHER REQUIREMENTS

Executive Order No. BJ 2008-7 directs all state agencies to administer their regulatory practices, programs, contracts, grants, and all other functions vested in them in a manner consistent with Louisiana's Comprehensive Master Plan for a Sustainable Coast and public interest to the maximum extent possible. If a proposed facility or modification is located in the Coastal Zone, LDEQ requires the applicant to document whether or not a Coastal Use Permit is required, and if so, whether it has been obtained. Coastal Use Permits are issued by the Coastal Management Division of the Louisiana Department of Natural Resources (LDNR).

The facility is not located in the Coastal Zone; therefore, a Coastal Use Permit is not required.

XVII. PUBLIC NOTICE/PUBLIC PARTICIPATION

Written comments, written requests for a public hearing, or written requests for notification of the final decision regarding this permit action may be submitted to:

Ms. Soumaya Ghosn
LDEQ, Public Participation Group
P.O. Box 4313
Baton Rouge, Louisiana 70821-4313

Written comments and/or written requests must be received prior to the deadline specified in the public notice. If LDEQ finds a significant degree of public interest, a public hearing will be held. All comments will be considered prior to a final permit decision.

LDEQ will send notification of the final permit decision to the applicant and to each person who has submitted written comments or a written request for notification of the final decision.

The permit application, proposed permit, and this Statement of Basis are available for review at LDEQ, Public Records Center, Room 127, 602 North 5th Street, Baton Rouge, Louisiana. Viewing hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday (except holidays). Additional copies may be viewed at the local library identified in the public notice. The available information can also be accessed electronically via LDEQ's Electronic Document Management System (EDMS) on LDEQ's public website, www.deq.louisiana.gov.

Inquiries or requests for additional information regarding this permit action should be directed to the contact identified on page 1 of this Statement of Basis.

Persons wishing to be included on the public notice mailing list or for other public participation-related questions should contact LDEQ's Public Participation Group at P.O.

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Box 4313, Baton Rouge, LA 70821-4313; by e-mail at maillistrequest@ldeq.org; or contact LDEQ's Customer Service Center at (225) 219-LDEQ (219-5337). Alternatively, individuals may elect to receive public notices via e-mail by subscribing to LDEQ's Public Notification List Service at http://www.doa.louisiana.gov/oes/listservpage/ldeq_pn_listserv.htm.

Permit public notices can be viewed at LDEQ's "Public Notices" webpage, <http://www.deq.louisiana.gov/apps/pubNotice/default.asp>. Electronic access to each proposed permit and Statement of Basis current on notice is also available on this page. General information related to public participation in permitting activities can be viewed at www.deq.louisiana.gov/portal/tabid/2198/Default.aspx.

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APPENDIX A - ACRONYMS

AAS	Ambient Air Standard (LAC 33:III.Chapter 51)
AP-42	EPA document number of the Compilation of Air Pollutant Emission Factors
BACT	Best Available Control Technology
BTU	British Thermal Units
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring, 40 CFR 64
CEMS	Continuous Emission Monitoring System
CMS	Continuous Monitoring System
CO	Carbon monoxide
COMS	Continuous Opacity Monitoring System
CFR	Code of Federal Regulations
EI	Emissions Inventory (LAC 33:III.919)
EPA	(United States) Environmental Protection Agency
EIQ	Emission Inventory Questionnaire
ERC	Emission Reduction Credit
FR	Federal Register or Fixed Roof
H ₂ S	Hydrogen sulfide
H ₂ SO ₄	Sulfuric acid
HAP	Hazardous Air Pollutants
Hg	Mercury
HON	Hazardous Organic NESHAP
IBR	Incorporation by Reference
LAER	Lowest Achievable Emission Rate
LDEQ	Louisiana Department of Environmental Quality
M	Thousand
MM	Million
MACT	Maximum Achievable Control Technology
MEK	Methyl ethyl ketone
MIK	Methyl isobutyl ketone
MSDS	Material Safety Data Sheet
MTBE	Methyl tert-butyl ether
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industrial Classification System (replacement to SIC)
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMOC	Non-Methane Organic Compounds

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NO _x	Nitrogen Oxides
NNSR	Nonattainment New Source Review
NSPS	New Source Performance Standards
NSR	New Source Review
OEA	LDEQ Office of Environmental Assessment
OEC	LDEQ Office of Environmental Compliance
OES	LDEQ Office of Environmental Services
PM	Particulate Matter
PM ₁₀	Particulate Matter less than 10 microns in nominal diameter
PM _{2.5}	Particulate Matter less than 2.5 microns in nominal diameter
ppm	parts per million
ppmv	parts per million by volume
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
RBLC	RACT-BACT-LAER Clearinghouse
RMP	Risk Management Plan (40 CFR 68)
SICC	Standard Industrial Classification Code
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SOCMI	Synthetic Organic Chemical Manufacturing Industry
TAP	Toxic Air Pollutants (LAC 33:III.Chapter 51)
TOC	Total Organic Compounds
TPY	Tons Per Year
TRS	Total Reduced Sulfur
TSP	Total Suspended Particulate
µg/m ³	Micrograms per Cubic Meter
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound
VOL	Volatile Organic Liquid
VRU	Vapor Recovery Unit

STATEMENT OF BASIS

LOUISIANA REFINING DIVISION, GARYVILLE REFINERY MARATHON PETROLEUM COMPANY LLC GARYVILLE, ST. JOHN THE BAPTIST PARISH, LOUISIANA

Agency Interest (AI) No. 3165

Activity No. PER20080033

Proposed Permit No. 2580-00013-V0

APPENDIX B – GLOSSARY

Best Available Control Technologies (BACT) – an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this Part (Part III) which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring – A federal air regulation under 40 CFR Part 64.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Federally Enforceable Specific Condition – A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the proposed permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status – those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

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Lowest Achievable Emission Rate (LAER) – for any source, the more stringent rate of emissions based on the following:

- a. the most stringent emissions limitation that is contained in the implementation plan of any state for such class or category of major stationary source, unless the owner or operator of the proposed stationary source demonstrates that such limitations are not achievable; or
- b. the most stringent emissions limitation that is achieved in practice by such class or category of stationary source. This limitation, when applied to a modification, means the lowest achievable emissions rate for the new or modified emissions units within the stationary source. In no event shall the application of this term permit a proposed new or modified major stationary source to emit any pollutant in excess of the amount allowable under an applicable new source standard of performance.

NESHAP – National Emission Standards for Hazardous Air Pollutants – Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63.

Maximum Achievable Control Technology (MACT) – the maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NSPS – New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60.

New Source Review (NSR) – a preconstruction review and permitting program applicable to new or modified major stationary sources of criteria air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C (“Prevention of Significant Deterioration of Air Quality”) and D (“Nonattainment New Source Review”).

Nonattainment New Source Review (NNSR) – a New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) set forth at 40 CFR Part 50. NNSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound – any compound of carbon and another element. Examples: methane (CH₄), ethane (C₂H₆), carbon disulfide (CS₂).

Part 70 Operating Permit – also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507.

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PM₁₀ – particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – a New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Selective Catalytic Reduction (SCR) – A non-combustion control technology that destroys NO_x by injecting a reducing agent (e.g., ammonia) into the flue gas that, in the presence of a catalyst (e.g., vanadium, titanium, or zeolite), converts NO_x into molecular nitrogen and water.

Sulfur Dioxide (SO₂) – An oxide of sulphur.

TAP – LDEQ acronym for toxic air pollutants regulated under LAC 33 Part III, Chapter 51, Tables 1 through 3.

“Top Down” Approach – An approach which requires use of the most stringent control technology found to be technically feasible and appropriate based on environmental, energy, economic, and cost impacts.

Title V permit – see Part 70 Operating Permit.

Volatile Organic Compound (VOC) – any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the Administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.

Title V Permit Application for Renewal
of Title V Permit No. 2887-V7,
Fugitive and Miscellaneous Equipment

Additional Request for Reconciliation, Minor
Modification, and Consolidation of Title V Permits
(Incorporation of 2891-V7, 2893-V11, 2640-V6,
and 2887-V7 into 2580-00013-V0)

REVISION 2

Volume I of II

Prepared for:



**Marathon
Petroleum Company LLC**

Marathon Petroleum Company LLC
Louisiana Refining Division
P.O. Box AC
Garyville, Louisiana 70051

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URS File: 19229359.00005



URS Corporation
7389 Florida Blvd., Suite 300
Baton Rouge, Louisiana 70806
225.922.5700